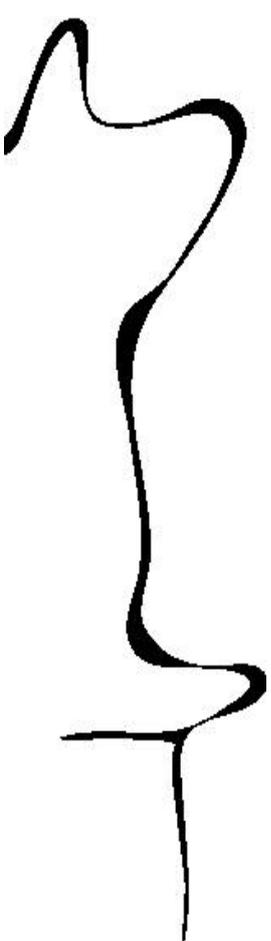


UNIVERSITEIT TWENTE.



**Measuring Committed Action: Psychometric
Evaluation of the Committed Action Questionnaire
(CAQ) in a Nonclinical Sample**

June 2014



Student: Jannis Kraiss, s1206273

Course: Bachelor Thesis, 3rd year

First supervisor: Hester Trompetter, MSc.

Second supervisor: Dr. Peter Ten Klooster

ABSTRACT

This study focuses on a psychometric evaluation of the Dutch version of the Committed Action Questionnaire (CAQ), a newly developed process specific, self-report measure assessing committed action, a key process within the framework of Acceptance and Commitment Therapy (ACT). The psychometric quality of the CAQ was evaluated in a Dutch speaking nonclinical sample ($N = 143$) gathered via convenient sampling. Results regarding factor analysis with a forced one factor solution, suggested a 17-item version for the Dutch version of the CAQ. Scores on the 17-item version of the CAQ showed good internal consistency in terms of Cronbach's Alpha and split-half reliability. Furthermore, good construct validity was indicated by patterns of relationships consistent with theoretically related variables from the framework of ACT, such as engaged living, psychological (in-)flexibility, mental health outcomes and mindfulness. Moreover, the CAQ showed incremental validity in predicting mental health beyond the measures of engaged living and mindfulness. Results suggest the Dutch version of the CAQ being a valid and reliable tool for the specific assessment of the concept of committed action. Considering limitations of this study, further research on the field of process-specific measures assessing committed action is recommended.

ABSTRACT

Dit onderzoek richt zich op een psychometrische evaluatie van de Nederlandse versie van de Committed Action Questionnaire (CAQ), een nieuw ontwikkelde proces specifieke zelfgerapporteerde vragenlijst voor het meten van Committed Action, een hoofdproces binnen Acceptance and Commitment Therapy. De psychometrische kwaliteit van CAQ werd geëvalueerd in een Nederlandstalige niet-klinische steekproef ($N = 143$). De steekproef werd verzameld via conveniënt sampling. Resultaten met betrekking tot een factor analyse met een vastgelegd aantal van één factor suggereren een 17-item versie voor de Nederlandse versie van de CAQ. Scores van deze 17-item versie laten goede interne consistentie zien, uitgedrukt in Cronbach's Alfa ($\alpha = .835$) en Split-Half betrouwbaarheid ($= 0.811$). Bovendien, goede construct validiteit werd gevonden door een stabiel patroon van correlaties tussen de CAQ and enkele theoretische concepten van het kader van ACT, waaronder betrokken leven, psychologische (in)flexibiliteit, mentale gezondheid en mindfulness. Daarboven laat de Nederlandse versie van de CAQ ook incrementele validiteit zien in het voorspellen van mentale gezondheid boven de concepten van betrokken leven en mindfulness. Samenvattend suggereren de resultaten dat de Nederlandse 17-item versie van de CAQ een valide en betrouwbaar instrument voor het specifieke meten van Committed Action is. Echter, rekening houdend met beperkingen van het onderzoek, wordt verder onderzoek naar proces specifieke meetinstrumenten en vooral met betrekking tot de CAQ aanbevolen.

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1. INTRODUCTION

A new generation of cognitive behavioral therapy (CBT) underlines the importance of accepting rather than attempting to control negative experiences and thoughts. Several forms of therapy arose from this basic idea: one is *Acceptance and Commitment Therapy* (ACT) (Hayes, Strosahl, & Wilson, 1999, 2012). ACT arose from the philosophical stream of functional contextualism and is based on Relational Frame Theory (for a detailed explanation of functional contextualism and Relational Frame Theory, *see* Hayes, 2004; Hayes et al., 2006). Regarding the development of CBT, ACT is a so-called third wave cognitive behavioral therapy (Ost, 2008; for a comprehensive overview of the development of CBT and ACT, *see* Hayes 2004; Hayes et al., 2006; Ost, 2008). In contrast to common CBT approaches, ACT's point of difference is its emphasis on the importance of context and the use of context changing strategies (A-tjak & Groot, 2008). It is not the aim of ACT to mitigate psychological disorder symptoms, but to promote acceptance of negative experiences and to change the context between an individual and a psychological matter (Hayes, Strosahl, & Wilson, 1999, 2012).

Within the framework of ACT two core concepts are important: *cognitive fusion* (CF) and *experiential avoidance* (EA). CF is seen as the negative influence of cognition when it appears within a context where thoughts are taken seriously. By interpreting thoughts in a harmful manner can lead to those thoughts gaining a strong negative load for the individual. Consequently, the affected person tries to escape from this negative experience (A-Tjak & Groot, 2008). Within ACT, this escape is described as EA, defined by Hayes et al. (2006) as "the attempt to avoid private events such as emotions, memories or thoughts even when doing so causes psychological harm". EA can be seen as the opposite of acceptance (Hayes et al., 2006) and can occur by suppressing negative emotions, or using alcohol and drugs. EA is considered being a main source for psychological problems and is seen as a primary mechanism in causing emotional, psychological and social problems (Hayes et al., 2006; A-Tjak & Groot, 2008; Biglan, Hayes, & Pistorello, 2008). A meta-analysis by Chawla & Ostafin (2007) found EA being a factor for the development and maintenance of several forms of psychopathology, including post-traumatic stress disorder, substance abuse, anxiety disorders and self-harm (Chawla et al., 2007). Furthermore, EA predicts negative outcomes in depression and distress symptoms (Polusny, Rosenthal, Aban & Follette, 2004) and is found to be associated with more

frequent negative life events (Kashdan, Barrios, Forsyth & Steger, 2006), especially by creating inflexibility and limiting the ability to react to certain situations adequately. This condition is described as *psychological inflexibility*. This inflexibility prevents a person from leading a meaningful life and performing valued daily life activities (Hayes et al., 2006; Hayes et al., 2012). Accordingly, it is the overall aim of ACT to decrease psychological inflexibility and consequently promote *psychological flexibility*, which is the ability to act according to personal goals and values in times of psychological stress or negative experiences (McCracken, 2013).

To promote psychological flexibility, Hayes et al. (2006) present a *model of human functioning* containing six core processes. In the latest update of ACT (Hayes, Strosahl & Wilson, 2012), these six core processes are paired together in three different response styles: open, centered and engaged. First of all, the ‘open response style’ represents the core processes of *acceptance* and *cognitive defusion*, enabling a person to break free from unfavorable experiences, to create distance from harmful thoughts and to accept negative events and view them in a nonjudgmental way . Secondly, the ‘centered response style’ aims to promote psychological flexibility, containing the core processes of *being present* and *self-as context*, defined as consciously experiencing the here-and-now, living an attentive life and being focused on present situations (Trompetter et al., 2013; Hayes et al., 2012). Both, the open and centered response styles are important requirements to lead an engaged life. This aspect is described within the third ‘engaged response style’, containing the core processes of *committed action* and *values* (Trompetter et al., 2013; Hayes et al., 2012). Committed action is linked to values and goals and includes living by one’s own values and standards and carrying out personal goals, even when experiencing negative events or thoughts and despite barriers that one will encounter (McCracken, 2013; Forman et al., 2007).

A meta-analysis underlines the effect of this fundamental idea, showing ACT, among others, being effective for psychosis, workplace stress and social anxiety (Hayes et al., 2006). More recent meta-analyses underlines the idea of ACT being effective for several forms of psychopathology, including depression and several forms of anxiety and chronic pain, in particular in comparison to control conditions (Forman, Herbert, Moitra, Yeomans & Geller, 2007; Veehof, Oskam, Schreurs & Bohlmeijer, 2011). However, ACT has not been proven to be more effective than other CBT

approaches in reducing psychological symptoms (Powers, Zum Vörde Sive Vörding, Emmelkamp, 2009; Pull, 2009; Ost, 2008).

To increase the effectiveness of ACT valid measures are necessary and crucial to specify what kind of treatment works best for whom and to evaluate whether ACT is effective (Trompetter et al., 2013). Furthermore, the evaluation of core processes is necessary to develop effective models, to improve measurements, to increase the effectiveness of ACT and to reveal which processes prompt therapeutic change (Kraemer, Wilson, Fairburn & Agras, 2002). For this reason, a wide range of questionnaires exists to measure concepts of ACT. Questionnaires measuring the concept of experiential avoidance and acceptance include the *Acceptance and Action Questionnaire* (AAQ; Bond & Bunce, 2003; AAQ-II; Bond et al., 2011; Hayes et al., 2004) and the *Multi-dimensional Experiential Avoidance Questionnaire* (MEAQ; Gámez, Chmielewski, Kotov, Ruggero & Watson, 2011). Questionnaires measuring the centered response style include the *Five Facet Mindfulness Questionnaire* (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006), *Mindful Attention and Awareness Scale* (MAAS; Brown & Ryan, 2003) and the *Toronto Mindfulness Scale* (TMS; Lau, Bishop, Segal et al., 2006) assessing the concept of mindfulness, defined as awareness for present situations and the here-and-now. Examples for questionnaires measuring concepts of the engaged response style are the *Bull's Eye Values Survey* (BEVS; Lundgren, Luoma, Dahl, Strohsahl, & Mehlin, 2012) measuring (a) values attainment and (b) the extent to which obstacles or barriers prevent one from values attainment and also the *Valued Living Questionnaire* (VLQ; Wilson, Sandoz, Kitchens, & Roberts, 2010), measuring success in certain life domains (e.g. work, education or family) and the extent to which one lives by own values and in these life domains. Recently, the *Engaged Living Scale* (ELS; Trompetter et al., 2013) was developed as process specific measure for the process of engaged living, assessing both the concept of valued living (including the processes of committed action and the extent to which one lives by own values) and the extent of life fulfillment of living in accordance with values and performing committed action. The ELS was generated to examine whether improvement in the engaged response style mediates improvement in behavioral effectiveness and mental health and due to a lack of questionnaires measuring the process of engaged living (Trompetter et al., 2013).

Parallel to the ELS, the *Committed Action Questionnaire* was generated (CAQ; McCracken, 2013) within a sample of chronic pain patients. Due to a shortcoming of specific measures assessing the concept of committed action the CAQ specifically aims to measure purely the process of committed action (McCracken, 2013). From originally 24 items, McCracken generated an 18 item version under professional assistance of several experts from the field of ACT and with the support of several statistical analyses, including factor analysis, regression analysis and correlational studies. McCracken concludes the CAQ being a reliable and valid instrument for the assessment of committed action, finding support in outcomes yielding high internal consistency ($\alpha = 0.91$) and correlations with several concepts, including pain acceptance, depression and general health (McCracken, 2013).

The aim of the present study is to assess the psychometric quality of the Dutch version of the CAQ in a nonclinical sample, as the study by McCracken (2013) is the first one evaluating the CAQ, but to this day the CAQ has not been evaluated in Dutch. Furthermore, although McCracken concluded the CAQ being a valid instrument for the attainment of committed action, he only evaluated the CAQ within a clinical sample of chronic pain patients. For this reason, it is not certain whether similar results can be expected in a different sample containing nonclinical participants and whether the CAQ can be used with confidence for nonclinical populations. Finally, a specific questionnaire assessing the concept of committed action widens the scope of available measures and heightens the flexibility for the assessment of committed action.

To establish the psychometric quality of the Dutch version of the CAQ, several psychometric properties are determined. First of all, the factor structure will be examined. Therefore, a confirmatory factor analysis with a forced number of one factor will be conducted to determine whether the factor structure found in the preliminary study (McCracken, 2013) can be confirmed in a nonclinical sample and for the Dutch version of the CAQ. It is expected that the same set of items are selected for the Dutch version of the CAQ as for the English version selected by McCracken (McCracken, 2013). Afterwards, Cronbach's alpha and split-half reliability are determined to evaluate the internal consistency. Additionally, to determine construct validity the relationship between the CAQ and theoretically related variables from the framework of ACT will be examined. Theoretically related variables used for this purpose include variables measuring engaged living (ELS; Trompetter et al.,

2013), psychological inflexibility (AAQ-II; Bond et al., 2011), mental and physical health (MHC-SF Lamers, Glas, Westerhof & Bohlmeijer, 2012; HADS; Zigmond & Snaith, 1983; SF-12; Ware, Kosinski & Keller, 1996) and mindfulness (FFMQ-SF; Baer et al., 2006). In general, a high positive correlation ($r > 0.5$) with engaged living and moderate correlations ($r > 0.3$) with mindfulness and the different facets of mindfulness as related constructs from the framework of ACT are expected (Trompetter et al., 2013; Hayes et al., 2011) and at least moderate to high negative correlation will be expected between committed action and psychological inflexibility ($r < -0.3$). Moreover, moderate to high correlations ($r > 0.3$; $r > 0.5$) with positive outcomes of mental health are expected (i.e. psychological well-being) and at least negative moderate correlations ($r < -0.3$) with anxiety and depression, based on the ACT model and findings of preliminary studies (McCracken, 2013; Hayes et al., 2006; Fledderus, Bohlmeijer, Pieterse et al., 2012). In accordance with preliminary findings (McCracken, 2013) a low to moderate positive correlation will be expected regarding the correlation between social well-being and the CAQ. With regard to the relationship between outcomes of physical health and scores of the CAQ low positive correlations will be expected ($r < 0.3$), based on preliminary findings indicating little relationship between physical health and engaged living (McCracken, 2013; Trompetter, Bohlmeijer, Baalen et al., 2014). To further examine validity, incremental validity is determined. For this, concepts from the framework of ACT are chosen (engaged living, psychological inflexibility and mindfulness) and it is tested whether the CAQ adds information to these concepts in predicting mental health outcomes. In general, it is expected that the CAQ does not add significant information to the concept of engaged living, as both concepts aim to measure strongly related processes (Hayes et al., 2012; Trompetter et al., 2013). Further, it will be expected that scores on the CAQ add significant information to the concepts of psychological inflexibility and mindfulness, as both concepts rather aim to measure different processes (Hayes et al., 2006; Hayes et al., 2012). Finally, it is expected that the CAQ does not add significant information to all three concepts engaged living, psychological inflexibility and mindfulness.

2. METHOD

2.1. Participants

Participants for this study were gathered via convenient sampling. Ultimately, the sample ($N = 143$) consisted of participants gathered from several sources. Some individuals ($n = 13$) were invited to participate through relatives and friends of the researcher. However, the majority of participants ($n = 130$) was gathered via SONA systems, the official research platform of the University of Twente (<http://utwente.sona-systems.com>). This process is administered via SONA systems. Inclusion criteria for the study were that participants were at least 18 years old and able to understand and read the Dutch language. Mean age of the participant sample was 21.94 ($SD = 5.38$) years, 72.0% were female and 97.9% of the participant sample was unmarried. Nationality shows a relatively balanced distribution; 51.7% of the participant sample was German and 48.3% was Dutch. Educational level varied from 84.6% intermediate education (< 16 years of education), 15.4% high educated participants (> 16 years of education) and no single participant was low educated (< 12 years of education). Statistics regarding the living situation reveal 28.0% of the participant sample living alone, 14.7% living together with a partner and 56.6% mentioned a different living situation (e.g. shared flats or living together with parents). Table 1 shows an overview of the descriptive statistics described above.

Table 1*Demographical data of the participant sample (n = 143)*

Variable		n (%)
Gender	Female	103 (72.0)
	Male	40 (28.0)
Nationality	German	69 (48.3)
	Dutch	74 (51.7)
Civil state	Unmarried	140 (97.9)
	Married	3 (2.1)
Educational level	Low	4 (2.8)
	Moderate	124 (86.7)
	High	15 (10.5)
Living Situation	Alone	40 (28.0)
	Together with partner	21 (14.7)
	Together with partner & children	1 (0.7)
	Different	81 (56.6)
Age (mean. sd)		21.94 (5.382)

2.2. Procedure & Design

The present study was designed as a cross-sectional study. All participants filled in the questionnaire via the online-survey system Thesistools (<http://www.thesistools.com/>). Before completing the questionnaire, participants received an information text, including a rough overview of the aim and structure of the upcoming questionnaire. Furthermore, participants were informed that the data was treated in strict confidence and participants had to give their consent that their data is used for scientific purposes. In total, two different surveys were used for this study. The first and longer one was given to all participants who did the study via SONA systems. This long version of the study contains the Committed Action Questionnaire (CAQ; McCracken, 2013), Engaged Living Scale (ELS; Trompetter et al., 2013), Acceptance and Action Questionnaire-II (AAQ-II; Bond et al., 2011), Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983), Mental Health Continuum-Short Form (MHC-SF), Short-Form 15 Health Survey (SF-15) and finally the Five Facet Mindfulness Questionnaire-Short Form (FFMQ-SF). The second version of the survey was sent to friends and

relatives of the researcher and does not include the FFMQ-SF, but all the other above named questionnaires. In total, 130 participants completed the longer version of the study, including the FFMQ-SF and 13 participants answered the shorter version of the study. All questionnaires will be described more in detail below. The survey was available on SONA systems from April the 7th until the 1st of May 2014. Completing the questionnaires took approximately 30 to 45 minutes.

2.3. Measures

In the beginning of the questionnaire, participants were asked to specify demographical data, including age, gender, nationality, living situation, education and family status. Afterwards, a test battery was used, containing following questionnaires:

Committed Action Questionnaire (CAQ)

First of all, the CAQ (McCracken, 2013) is an 18 item questionnaire generated from an original set of 24 items and measures the process of committed action. Participants answered the questions on a 7-point Likert scale (0 = never true, 6 = always true). The total score can range from 0 to 108, calculated by summing up the scores of the individual items. A higher score indicates a higher level of committed action. Within this study, the Dutch version of the CAQ was used. Translating the CAQ was conducted by multiple retranslations; the CAQ was translated several times from English to Dutch and back from Dutch to English. The whole process was performed by independent translators. The English version of the CAQ (McCracken, 2013) showed good internal consistency ($\alpha = .91$) within a clinical sample of chronic pain patients. Statistical correlational analysis showed the CAQ being significantly related to pain acceptance, depression, social functioning, mental health, vitality and general health (McCracken, 2013). The psychometric quality of the Dutch version of the CAQ has not been evaluated yet.

Engaged Living Scale (ELS)

Secondly, the ELS (Trompetter et al., 2013) was used, containing 16 items assessing the concept of *engaged living*. The first ten statements aim to measure the scale of *valued living*, described as the extent to which one is aware of their own values and lives according to those values. Secondly, the last six items measure the scale of *life fulfillment* and assesses the extent to which someone leads a fulfilled life as consequence of living according to their own values. Participants answered the items on a scale from 0 (never true) to 6 (always true). The total score of engaged living could range from 0 to 96 for the total scale, from 0 to 60 for the subscale valued living and from 0 to 36 for the concept of life fulfillment. A high score indicated a higher level of engaged living. The internal consistency (Trompetter et al., 2013) was evaluated as good in multiple samples for the valued life and life fulfillment subscale ($\alpha = .86$) and as excellent for the engaged living scale ($\alpha = .91$).

Acceptance and Action Questionnaire-II (AAQ-II)

The AAQ-II (Bond et al., 2011) is a 10 item questionnaire measuring psychological (in-)flexibility. Participants answered the questions on a 7-point Likert scale (1 = never true, 7 = always true). The total score can range from 10 to 70, a higher score indicating a higher level of psychological (in-)flexibility. For this study, the Dutch version of the AAQ-II (Jacobs, Kleen, Groot, & A-Tjak, 2008; Fledderus et al., 2012) was used, which showed good internal consistency ($\alpha = .88$). Other research also found the AAQ-II having good internal consistency (mean $\alpha = .84$) and predicting a range of outcomes, including work absence and mental health. Also the AAQ-II appeared to have appropriate discriminant validity (Bond et al., 2011).

Hospital Anxiety and Depression Scale (HADS)

Fourthly, the Hospital Anxiety and Depression Scale (HADS; Zigmond et al., 1983) is a 14 item questionnaire, measuring anxiety and depression symptoms. The first scale, containing 7 items, measures anxiety symptoms. The second scale, containing the other 7 items, measures depression symptoms. All questions are answered on a 4-point liker scale, describing the strength of symptoms (0 = very weak, 3 = very strong). The total score can range from 0 to 42 and was computed by summing up the scores on the individual items. For this study, both the total score and scores on the

subscales were determined. Research (Goodinson, Ponsford & Schönberger, 2009) found high internal consistency regarding the complete HADS ($\alpha = .94$), depression scale ($\alpha = .92$) and anxiety scale ($\alpha = .88$).

Mental Health Continuum Short Form (MHC-SF)

Fifthly, the Mental Health Continuum-Short Form (MHC-SF) was used, consisting of 14 items measuring positive mental health on three dimensions. The first dimension describes emotional well-being (three items), defined as positive feelings and satisfaction in life. The second dimension measures psychological well-being (six items), described as positive functioning and individual life. The last dimension assesses social well-being (five items), defined as positive functioning in community life (Lamers et al., 2012; Keyes, 2002). Participants answered the questions on a 6-point Likert scale. In doing so, participants rated the frequency of feelings they experienced during the last week (1 = never, 6 = every day). Accordingly, the total score ranges from 14 to 84 and a higher scores indicated higher positive mental health. For the purpose of this study, the total score was determined and also the scores on every dimension described above. The internal consistency of the MHC-SF was proven to be good (Lamers, Westerhof, Bohlmeijer, ten Klooster & Keyes, 2011) for emotional well-being ($\alpha = .85$), psychological well-being ($\alpha = .73$) and social well-being ($\alpha = .82$).

Short-Form 12 Health Survey (SF-12)

Sixthly, the Short-Form 12 Health Survey (SF-12; Ware et al., 1996) is a 12 item questionnaire and represents a shortened version of the SF-36. The SF-12 measures physical and mental health due to mental impairments and mental health. The physical scale measures the extent to which one suffers from physical problems and the mental scale assesses limitations someone experiences due to mental problems. Higher scores on the SF-12 indicated a higher level of physical and mental health. Within this study, the scores on the subscales of both mental and physical health were determined. The SF-36 revealed good internal consistency (Aaronson et al., 1998) within in the present study ($\alpha = .88$).

Five Facet Mindfulness Questionnaire-Short Form (FFMQ-SF)

Finally, the FFMQ-SF is a 24-item questionnaire measuring five different facets of mindfulness; observing (four items), describing (five items), acting with awareness (five items), nonjudging (five items) and nonreactivity (five items) (Baer et al., 2006; Bohlmeijer, ten Klooster, Fledderus, Veehof & Baer, 2011). Participants answered all items on a scale from 1 (never or rarely true) to 5 (very often or always true). The subscores ranged from 5 to 25, except for the observing facet, which ranged from 5 to 20. A higher score indicated more mindfulness. For the purpose of this study, the total score of mindfulness was determined and also the subscores for every facet described above. The total score ranged from 24 to 120. For this study, the Dutch version of the FFMQ-SF was used (Bohlmeijer et al., 2011), which showed adequate to good internal consistency for four facets (observing, $\alpha = .71$, describing, $\alpha = .83$, acting with awareness, $\alpha = .81$ and nonjudgmental, $\alpha = 0.64$) and marginal internal consistency for the facet score nonreactive ($\alpha = .58$).

2.4. Statistical Analysis

For all statistical analysis the Statistical Package for the Social Sciences (SPSS), version 20 was used. Firstly, a missing values analyses was conducted. For this purpose, Little's MCAR test was used to find out whether missing values existed and if a systematic relation between missing values consists. Results indicated that no relation between missing values existed and missing values are at random ($p = .793$). Ultimately, missing values were automatically replaced by the expectation maximization algorithm of SPSS. In total, 11 participants were excluded from statistical analysis because only the first section of the questionnaire (demographics) was filled out and the participants not completed any questionnaires. Two participants did not complete the whole questionnaire but were included for statistical analysis because only values of one test (FFMQ-SF) respectively two tests (FFMQ-SF and SF-12) were missing. The missing values were automatically replaced by SPSS.

Secondly, it was determined whether the sample shows normal distribution. Therefore, the Shapiro-Wilk test was used. Results indicated normal distribution of the scores for both the 18 and 24 item version of the CAQ ($p = .194$; $p = .660$). The same conclusion applies to the total scores of the ELS ($p = .221$) and scores of the subscales valued living ($p = .511$) and life fulfillment ($p = .297$).

Further could be assumed that scores of the AAQ-II were normally distributed ($p = .105$) and both the subscale social well-being ($p = .074$) of the MHC-SF and the total score of the MHC-SF ($p = .063$). Moreover, for total scores ($p = .067$) and most subscales of the FFMQ-SF normal distribution was assumed (describing, $p = 0.95$; acting with awareness, $p = .150$; nonjudging, $p = .224$ and nonreactivity, $p = .183$). Only for the subscale observing of the FFMQ-SF a non-normal distribution was found ($p = .038$). The same applied to the subscales emotional and psychological well-being of the MHC-SF ($p < .001$; $p = .011$) and for the total score of the HADS ($p = .000$) and also for the subscale depression ($p < .0001$) and anxiety ($p = .002$). The scales above showing no normal distribution were not modified and were only used for correlational analysis but not for further statistical analysis.

To examine the factor structure of the Dutch version of the CAQ, a factor analysis with a fixed number of one factor was conducted. The results should show whether the same 18 items as for the English version of the CAQ (McCracken, 2014) should be chosen for further statistical analysis. As threshold for an item being valid a factor loading > 0.30 is used (Trompetter et al., 2014). Afterwards, Cronbach's alpha for the remaining CAQ items and split-half reliability were determined to estimate internal consistency. Values higher than 0.70 and lower than 0.90 were seen as good, values higher than 0.90 were seen as excellent (Cohen & Swerdlik, 2010). For the purpose of construct validity the Pearson correlation-coefficient was used. Therefore, the correlation between the CAQ and other scales (HADS, ELS, MHC-SF, AAQ-II, SF-15 and FFMQ-SF) was studied to find out whether the expected pattern of correlations consists between the CAQ and other scales. The following guideline was used to evaluate the results regarding correlation analysis: a correlation higher than 0.1 and lower than 0.3 was seen as low, a correlation higher than 0.3 and lower than 0.5 was seen as moderate and a correlation higher than 0.5 was seen as high (Cohen & Swerdlik, 2010). Finally, to determine incremental validity of the CAQ, the total mental health score from the MHC-SF was used as dependent variable and a hierarchical regression analysis was performed. Independent variables were the score of the AAQ-II, of the ELS and the FFMQ-SF. For all statistical analysis, a significance level of 0.05 was used.

3. RESULTS

3.1. Factor structure

To examine whether a similar factor structure as in the study by Lance McCracken (McCracken, 2014) can be found for the Dutch version of the CAQ, a confirmative factor analysis with one factor and varimax rotation was conducted. Therefore, the original 24 items generated by Lance McCracken were used to examine whether similar results for the Dutch version of the CAQ can be found. Bartlett's test of sphericity revealed an approximate Chi-square = 920.97, $p < .001$ and the Kaiser-Meyer-Olkin Measure of sampling adequacy .76, suggesting the sample being factorable. The results summarized in Table 2 show that factor loadings of 17 of the original 24 items are higher than .30. Similar to the results shown by McCracken who removed six of the original 24 items (item 3, 10, 13, 18, 20 and 24) item 3 of the Dutch version of the CAQ (factor loading = .27), item 10 (factor loading = .07) and item 13 (factor loading = .12) show low factor loading. The same applies to item 18 (factor loading = -.01) and item 20 (factor loading = .25). In contrast to the results by Lance McCracken, item 11 (factor loading = .26) and item 14 (factor loading = .28) have shown low factor loading in the present study. Both factor loadings (regarding item 11 and 14) almost significant almost meet the criterion but for the present study a strict threshold of $< .30$ is used. Furthermore, different to McCracken's results item 24 shows a sufficiently high factor loading (factor loading = .46). For further statistical analysis, seven items of the original 24 items were removed (item 3, 10, 11, 14, 18 and 20) and 17 items remained.

3.2. Internal consistency

To determine internal consistency of the remaining items Cronbach's Alpha was determined for the 17 item Dutch version of the CAQ. Results revealed a high internal consistency for the 17 item version ($\alpha = .835$) which could be increased (to $\alpha = .836$) by deleting item 6. However, item 6 was not deleted because the increase of alpha would be too low. To estimate split-half reliability of the CAQ the Spearman-Brown Coefficient was determined. For the 17 item version of the CAQ good a result was found (.811).

Table 2*Results of a confirmative maximum likelihood factor analysis with a fixed number of one factor*

Item	Mean (SD)	Factor Loading
1. Ik kan doorgaan op de ingeslagen weg nadat ik op problemen ben gestuit	4.03 (1.04)	0.44
2. Als ik er niet in slaag een doel te behalen, kan ik mijn aanpak veranderen	4.09 (0.90)	0.57
3. Als ik pijn voel wanneer ik iets doe, zal ik daarmee ophouden, wat het me ook kost	3.08 (1.19)	0.27
4. Ik houd vast aan mijn doelen zelfs wanneer er momenten zijn waarop ik er niet in slaag ze te behalen	4.10 (1.04)	0.52
5. Wanneer het moeilijk is om een doel te behalen, kan ik kleine stappen zetten om het te bereiken	4.09 (0.90)	0.48
6. Ik handel impulsief wanneer ik me onder druk voel staan	2.95 (1.43)	0.31
7. Ik verander liever de manier waarop ik een doel nastreef dan dat ik opgeef	4.32 (1.13)	0.64
8. Ik kan me houden aan mijn lange termijn plan, ook op momenten dat er weinig vooruitgang is	3.75 (1.14)	0.48
9. Als ik er niet in slaag te bereiken wat ik wil doen, zorg ik ervoor dat ik dat nooit meer doe	3.77 (1.30)	0.41
10. Wat doelen betreft heb ik een alles-of-niets-houdin	3.24 (1.42)	0.07
11. Ik blijf telkens hetzelfde doen, ook als me dit niet goed afgaat	3.55 (1.20)	0.26
12. Ik vind het moeilijk om met een activiteit door te gaan, tenzij ik merk dat het succesvol is	3.18 (1.35)	0.40
13. Wanneer ik een belofte doe, kan ik die zowel nakomen als veranderen	3.54 (1.21)	0.12
14. Ik laat me meer leiden door wat mijn gevoelens dan door mijn doelen	2.98 (1.34)	0.28
15. Ik kan mijn doelen nastreven, zowel wanneer me dit gemakkelijk afgaat als wanneer me dit moeilijk afgaat	3.94 (1.07)	0.69
16. Ik kan doorgaan met wat ik doe of juist veranderen wat ik doe al naargelang wat mij helpt mijn doelen te behalen	3.96 (1.04)	0.66
17. Als ik me voorneem iets te doen en er later niet in slaag dit voor elkaar te krijgen, dan laat ik mijn voornemen varen	3.48 (1.13)	0.48
18. Ik kan doelen loslaten die voor mij herhaaldelijk onbereikbaar zijn gebleken	3.31 (1.30)	- 0.01
19. Ik kan ontmoedigende ervaringen meenemen in het nastreven van mijn lange termijn plannen	3.82 (1.11)	0.36
20. Ik kan mislukking accepteren als iets wat hoort bij doen wat belangrijk is in mijn leven	3.59 (1.39)	0.25
21. Als ik me bang of moedeloos voel, laat ik mijn plannen varen	3.51 (1.26)	0.55
22. Ik laat me zo meeslepen door mijn gedachten of gevoelens dat ik niet de dingen kan doen die ik belangrijk vind	3.37 (1.34)	0.44
23. Als ik iets niet op mijn manier kan doen, doe ik het helemaal niet	3.94 (1.14)	0.45
24. Ik kan mijn beperkingen accepteren en op basis daarvan mijn handelingen aanpassen	3.78 (1.21)	0.46

Note: Factor loadings > .30 are printed bold

3.3. Construct validity

The results summarized in Table 3 show the correlations between the CAQ and other constructs. Total scores of the 17 item version of the CAQ correlated significantly with the total scores of the ELS ($r = .286$) and the scale of valued living ($r = .356$). Furthermore, a negative significant correlation was found between the CAQ and the total scores of the AAQ-II ($r = -.546$). Also, the relations between the CAQ and the total scores of the MHC-SF ($r = .357$) and the subscales of emotional ($r = .406$) and psychological well-being ($r = .409$) are found to be moderate positive. A negative correlation was found between the CAQ and total scores of the HADS ($r = -.365$) and both subscales depression ($r = -.330$) and anxiety ($r = -.340$). Scores between the CAQ and the total scores of the SF-12 ($r = .369$) and the subscale mental health of the SF-12 ($r = .393$) also correlated at a significant level. Similar results were found for the correlation between the CAQ and total scores of the FFMQ ($r = .481$) and between the CAQ and the subscales describing ($r = .349$), nonreactive ($r = .294$) and acting with awareness ($r = .436$) of the FFMQ-SF. Low but significant relations were found for several subscales including physical health of the SF-12 ($r = .224$) and the subscales observing ($r = .251$) and nonjudging ($r = .179$) of the FFMQ-SF. In the end, low and not significant correlations were found for the relation between the CAQ and the subscale Life Fulfillment of the ELS ($r = .081$) and between the CAQ and the subscale social well-being of the MHC-SF ($r = .129$).

Table 3

Statistics and correlations for the 17 item version of the CAQ and the ELS, AAQ-II, MHC-SF, HADS, SF-12 and FFMQ-SF

	Mean (SD)	CAQ (17 items)
<u>CAQ (17 items)</u>	64.09 (10.34)	-
<u>ELS</u>		
Total score	52.73 (8.80)	.286**
Valued living	34.85 (6.02)	.356**
Life fulfillment	17.87 (4.567)	.081
<u>AAQ-II</u>		
Total score	32.83 (10.23)	-.546**
<u>MHC-SF</u>		
Total score	44.79 (9.67)	.357**
Emotional well-being	10.45 (2.55)	.406**
Psychological well-being	20.83 (4.51)	.409**
Social well-being	13.50 (4.42)	.129
<u>HADS</u>		
Total score	12.01 (6.41)	-.376**
Depression	4.38 (3.09)	-.330**
Anxiety	7.63 (4.08)	-.340**
<u>SF-12</u>		
Total score	6.04 (0.89)	.369**
Physical health	3.21 (0.61)	.224**
Mental health	2.84 (0.41)	.383**
<u>FFMQ-SF</u>		
Total score	79.21 (10.73)	.481**
Observing	14.00 (3.07)	.251**
Describing	17.84 (3.56)	.349**
Acting with awareness	16.70 (3.75)	.436**
Nonjudging	15.08 (3.44)	.179*
Nonreactive	15.58 (3.06)	.294**

Notes: N = 143; FFMQ-SF (N = 130), * = p < .05; ** = p < .01

3.4. Relation between the MHC-SF and the CAQ, ELS, AAQ-II and FFMQ-SF

As preparation to determine incremental validity, the relation between the MHC-SF and the CAQ, ELS, AAQ-II and FFMQ-SF is determined. The relation between total scores of the MHC-SF and the CAQ was found to be significant ($r = .357$) and results regarding the ELS indicate intermediate relation between total scores of the ELS and the MHC-SF ($r = .487$), the subscale of valued living ($r = .446$) and for the life fulfillment scale of the ELS ($r = .351$). High negative correlation was found

between the scores of the AAQ-II and the MHC-SF ($r = -.525$). Furthermore, correlation between the total scores of the FFMQ-SF and the MHC-SF was found to be high ($r = .541$) and correlation between the subscales was moderate for the describing ($r = .385$), acting with awareness ($r = .387$), nonreactive ($r = .383$) and nonjudging ($r = .325$) scale of the FFMQ-SF. A weak but significant correlation was found for the observing scale ($r = .223$). Table 4 summarizes the results found during correlation analysis.

Table 4

Correlation between MHC-SF total score and the CAQ, AAQ-II, ELS and FFMQ-SF

	MHC-SF total score
MHC-SF total score	1.00
Committed action (CAQ)	0.357**
Engaged living (ELS)	0.487**
Psychological inflexibility (AAQ-II)	-.525**
Subscale Life fulfillment (ELS)	0.351**
Subscale Valued living (ELS)	0.446**
Mindfulness (FFMQ-SF)	0.541**
Subscale Observing (FFMQ-SF)	0.223*
Subscale Describing (FFMQ-SF)	0.385**
Subscale Acting with awareness (FFMQ-SF)	0.387**
Subscale nonjudging (FFMQ-SF)	0.325**
Subscale nonreactive (FFMQ-SF)	0.383**

3.5. Incremental validity

Based on the outcome that scores of the ELS, AAQ-II and FFMQ-SF were found to correlate with the concept of mental health, the scores of these questionnaires were used to examine the incremental validity of the CAQ beyond concepts of engaged living (ELS), psychological inflexibility (AAQ-II) and mindfulness (FFMQ-SF) in explaining variance in the outcome measure mental health (MHC-SF). Therefore, the scores of mental health (indicated by the MHC-SF) were used as dependent variable and it was tested to what extent scores on the AAQ-II, ELS and FFMQ-SF predicts scores on the MHC-SF. In a second step, the CAQ was added and it was examined whether the variance

significantly increased by using the CAQ beyond the other above named tests. The amount of variance change is used as criterion for incremental validity ($p < .05$). Table 5 summarizes the results found in the context of the incremental validity.

Table 5

Incremental validity of the CAQ above and beyond the ELS, AAQ-II and FFMQ-SF

Mental Health							
	B	SD	Beta	T	Sign.	R ² (%)	ΔR^2 (%)
<u>ELS</u>							
<i>Step 1</i>							
ELS	.54	.08	.49	6.62	< .01	23.2	
<i>Step 2</i>							
ELS	.46	.08	.42	5.64	< .01	-	
CAQ	.22	.07	.24	3.19	< .01	27.9	4.7
<u>AAQ-II</u>							
<i>Step 1</i>							
AAQ-II	-.50	.07	-.53	-7.33	< .01	27.6	
<i>Step 2</i>							
AAQ-II	-.45	.08	-.47	-5.51	< .01	-	
CAQ	.09	.08	.10	1.17	.24	28.3	0.9
<u>FFMQ-SF</u>							
<i>Step 1</i>							
FFMQ-SF	.49	.07	.54	7.27	< .01	28.7	
<i>Step 2</i>							
FFMQ-SF	.42	.08	.46	5.51	< .01	-	
CAQ	.15	.08	.16	1.94	.05	30.2	1.5
<u>ELS, AAQ-II and FFMQ-SF</u>							
<i>Step 1</i>							
ELS	.36	.09	.32	4.19	< .01	44.8	
AAQ-II	-.27	.08	-.29	-3.43	.01	-	
FFMQ-SF	.20	.08	.26	2.61	< .01	-	
<i>Step 2</i>							
ELS	.35	.09	.32	4.14	< .01	-	
AAQ-II	-.26	.08	.22	-3.09	< .01	-	
FFMQ-SF	.20	.09	-.28	2.49	.01	-	
CAQ	.02	.08	.03	.322	.75	44.9	0.1

The results show that the CAQ was able to explain 4.7% added variance above and beyond the ELS ($F_{\text{change}}(2, 141) = 10.17, p = .002$) indicating a significant incremental validity. No significant change in variance could be found regarding the AAQ-II; the CAQ explained 0.7% variance above and beyond the AAQ-II ($F_{\text{change}}(2, 141) = 1.37, p = .244$). Furthermore, the CAQ could explain 1.5% additional variance above and beyond the FFMQ-SF ($F_{\text{change}}(2, 129) = 3.77, p = .054$), indicating a marginal significant change in variance. In the end, the CAQ could not show a significant change in variance of 0.1% above and beyond the ELS, AAQ-II and FFMQ-SF together ($F_{\text{change}}(2, 129) = .10, p = .748$).

4. DISCUSSION

The aim of this study was to assess the psychometric properties of the Dutch version of the CAQ (McCracken, 2013), a process specific measure for the assessment of committed action. For this purpose, a nonclinical sample ($N = 143$) was used to determine the factor structure, internal consistency, construct validity and incremental validity of the CAQ. The main reason for conducting this study was that the CAQ has not been evaluated in Dutch yet.

Results of the factor analysis suggest a slightly different item pool for the Dutch version of the CAQ than for the English version found by McCracken (McCracken, 2013). The factor structure indicates an item pool of a total of 17 items for the Dutch version, in which seven of the original 24 items were removed due to insignificant factor loadings. Five items removed due to results of the factor analysis were the same as in the preliminary study by McCracken. Two items were included by McCracken but for this study both items were excluded due to low factor loadings. Finally, one item was removed by McCracken but not within the present study. Accordingly, the hypothesis that the same set of items should be selected for the Dutch version as for the English version can be confirmed to a large extent, but not entirely. At this point, no explanation for the discrepancy between the set of items can be found. The researcher has the impression that the questionnaire was properly translated. Furthermore, considering the translation was carried out by independent, professional translators, diminishes the possibility of a poor translation being the cause for the discrepancies. It must be mentioned that the two items removed within the present study but included by McCracken almost revealed sufficient factor loadings. One might argue that the two items could have been included for statistical analysis, but it was decided to strictly adhere to the threshold of $> .30$ for items being valid. For this reason, further studies are advised to examine whether this outcome can be confirmed in different samples. Perhaps, a definitive set of items for the Dutch version of the CAQ might be found then. Regarding the internal consistency of the new set of items both Cronbach's Alpha and Split-Half reliability were found to be good.

In terms of construct validity significant relationships were found between the CAQ and several concepts from the framework of ACT, including engaged living, psychological (in-)flexibility, mental and physical health and mindfulness. No significant correlation was found between committed

action and the concept of life fulfillment and social well-being. Generally, these results suggest the process of committed action as an important factor being related to mental health and other concepts from the framework of ACT. Regarding incremental validity the CAQ scores show incremental validity in explaining mental health beyond the concepts engaged living and mindfulness. No incremental validity was shown beyond psychological inflexibility and also not beyond engaged living, psychological inflexibility and mindfulness together.

Some findings deserve special attention. In particular the relation between the measure of engaged living and committed action was expected to be much higher. A possible explanation for this unexpected result might be that both the CAQ and ELS (Trompetter et al., 2013) turn out to assess more different concepts than anticipated. The concepts measured by the CAQ could rather be seen as clear actions someone takes in order to live according to values. An example item of the CAQ illustrating this theory is worded as follows: 'I act impulsively when I feel under pressure' (Dutch: 'Ik handel impulsief wanneer ik me onder druk voel staan'). This item highlights that the CAQ is merely designed to measure explicit behavior someone takes in certain situations. In contrast, the ELS measures on an abstract and less tangible level, merely assessing the values an individual carries and lives according to and the fulfillment someone experiences due to value attainment. Taking a brief view on an example item of the ELS provides support for this observation: 'I believe that I've found important values to life according to' (Dutch: 'In de afgelopen week wist ik welke waarden voor mij belangrijk waren'). After carefully comparing all statements of both questionnaires, a similar impression is formed, indicating that both questionnaires do not assess as concepts as related as originally thought. Furthermore, the results regarding incremental validity provide further support, showing the CAQ to be able to explain significant extra variance above the measure of engaged living. This unexpected outcome could be explained by the same theory as described above. To determine whether the CAQ and ELS measure such different processes as hypothesized, future research should focus on a comparison of both measures, investigating and determining the relation between both concepts more precisely.

Another unexpected outcome was the high negative correlation between committed action and the AAQ-II (Bond et al., 2011), indicating a higher level of committed action leading to more

psychological flexibility. From a theoretical point of view this conclusion makes sense. However, the relation was not expected to be that strong, as both concepts are similar in theory but still measure different concepts. A possible explanation could be that the AAQ-II assesses a very broad concept of psychological (in-)flexibility including several processes from the framework of ACT, among others committed action. Accordingly, the AAQ-II aims to measure the concept of committed action as well, leading to an high correlation between committed action and psychological (in-)flexibility. Results regarding incremental validity confirm this finding, showing that the CAQ cannot explain extra variance above the AAQ-II. By examining the relationship between the AAQ-II and different concepts from the framework of ACT, future research should examine whether the AAQ-II assesses the broad concept of psychological (in-)flexibility or rather smaller processes such as committed action or acceptance.

Other results deserving particular attention concern the low correlation found between the CAQ and the facet of observing of the FFMQ-SF (Baer et al., 2006). A possible explanation for this low correlation might be that the process of observing only relates to theoretical concepts from the framework of ACT for people having meditation experience (Baer et al., 2006; Veehof, Ten Klooster, Taal, Westerhof & Bohlmeijer, 2011). Furthermore, a low correlation was found between the facet of nonjudging and the CAQ, confirming earlier results indicating a weak relationship between the concept of engaged living and the facet of nonjudging (Trompetter et al., 2013). A possible explanation for this finding might be the internal consistency of this subscale of the FFMQ-SF, showing only an adequate Cronbach's Alpha in a preliminary study (Bohlmeijer et al., 2011). From a theoretical point of view there is no reason why both facets correlate low with committed action as both facets are theoretically related to committed action. Further research should investigate this matter, especially in order to determine whether the assessment of mindfulness might be inaccurate and whether the scale of nonjudging can still be used with confidence. Moreover, the low correlation found between committed action and physical health measured by the SF-12 (Ware et al., 1996) might appear remarkable, but confirms preliminary findings showing low correlation between engaged living and physical health (Trompetter et al., 2013). This low relation between ones physical health and the

amount of committed action might be explained by the idea that physical health does not influence to what extent someone lives according to his or her values and living a valued and meaningful life.

Several limitations of the present study and opportunities for future research can be acknowledged. For one, the selection of a young, highly educated sample might have distorted the results as different age groups might have answered and / or interpreted the CAQ differently from other age groups. For this reason, the results of the present study can hardly be generalized across all groups of society or different cultures. Future research should use a more balanced sample in terms of age and education. Furthermore, the available sample consisted of 143 participants: a general rule regarding sample size implies to gather ten participants per item being analyzed. Consequently, a sample size of approximately 240 participants should have been collected. Therefore, future research should engage a more appropriate sample size as well. A second limitation is that the factor analysis in this study was conducted by SPSS, version 20. Further research on the CAQ should use different statistical software to more precisely determine the factor structure and to find out whether the set of items found in the present study can be confirmed under different circumstances.

Overall, it can be concluded that the Dutch version of the CAQ is a valid and reliable instrument for the assessment of committed action, but further research is necessary to alleviate the doubts of this study. Also, above named limitations should be considered, including a relatively unbalanced participant sample, making the present study hard to generalize. The unexpected weak link between committed action and engaged living suggests the need for future research in order to determine more precisely what both the CAQ and ELS actually assess. However, this study contributed to the rapidly growing research field aiming to assess concepts from the framework of ACT and was one of the first steps towards a process specific measure assessing the concept of committed action.

Acknowledgment

The author of this paper would like to thank the first and second supervisor Hester Trompetter and Peter ten Klooster for their great support enduring this study. Furthermore the author would like to thank his former first supervisor Martine Veehof for her dedication and support during the first months of this study. Finally, the author would like to thank his family, friends and roommates for social and professional support during the entire process of this bachelor thesis.

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Appendix

Appendix 1

Committed Action Questionnaire (Dutch version with 24 items)

1. Ik kan doorgaan op de ingeslagen weg nadat ik op problemen ben gestuit	0	1	2	3	4	5	6
2. Als ik er niet in slaag een doel te behalen, kan ik mijn aanpak veranderen	0	1	2	3	4	5	6
3. Als ik pijn voel wanneer ik iets doe, zal ik daarmee ophouden, wat het me ook kost * †	0	1	2	3	4	5	6
4. Ik houd vast aan mijn doelen zelfs wanneer er momenten zijn waarop ik er niet in slaag ze te behalen	0	1	2	3	4	5	6
5. Wanneer het moeilijk is om een doel te behalen, kan ik kleine stappen zetten om het te bereiken	0	1	2	3	4	5	6
6. Ik handel impulsief wanneer ik me onder druk voel staan *	0	1	2	3	4	5	6
7. Ik verander liever de manier waarop ik een doel nastreef dan dat ik opgeef	0	1	2	3	4	5	6
8. Ik kan me houden aan mijn lange termijn plan, ook op momenten dat er weinig vooruitgang is	0	1	2	3	4	5	6
9. Als ik er niet in slaag te bereiken wat ik wil doen, zorg ik ervoor dat ik dat nooit meer doe *	0	1	2	3	4	5	6
10. Wat doelen betreft heb ik een alles-of-niets-houding * †	0	1	2	3	4	5	6
11. Ik blijf telkens hetzelfde doen, ook als me dit niet goed afgaat * †	0	1	2	3	4	5	6
12. Ik vind het moeilijk om met een activiteit door te gaan, tenzij ik merk dat het succesvol is *	0	1	2	3	4	5	6
13. Wanneer ik een belofte doe, kan ik die zowel nakomen als veranderen †	0	1	2	3	4	5	6

14. Ik laat me meer leiden door wat mijn gevoelens dan door mijn doelen * †	0	1	2	3	4	5	6
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15. Ik kan mijn doelen nastreven, zowel wanneer me dit gemakkelijk afgaat als wanneer me dit moeilijk afgaat	0	1	2	3	4	5	6
16. Ik kan doorgaan met wat ik doe of juist veranderen wat ik doe al naargelang wat mij helpt mijn doelen te behalen	0	1	2	3	4	5	6
17. Als ik me voorneem iets te doen en er later niet in slaag dit voor elkaar te krijgen, dan laat ik mijn voornemen varen *	0	1	2	3	4	5	6
18. Ik kan doelen loslaten die voor mij herhaaldelijk onbereikbaar zijn gebleken †	0	1	2	3	4	5	6
19. Ik kan ontmoedigende ervaringen meenemen in het nastreven van mijn lange termijn plannen	0	1	2	3	4	5	6
20. Ik kan mislukking accepteren als iets wat hoort bij doen wat belangrijk is in mijn leven †	0	1	2	3	4	5	6
21. Als ik me bang of moedeloos voel, laat ik mijn plannen varen *	0	1	2	3	4	5	6
22. Ik laat me zo meeslepen door mijn gedachten of gevoelens dat ik niet de dingen kan doen die ik belangrijk vind *	0	1	2	3	4	5	6
23. Als ik iets niet op mijn manier kan doen, doe ik het helemaal niet *	0	1	2	3	4	5	6
24. Ik kan mijn beperkingen accepteren en op basis daarvan mijn handelingen aanpassen	0	1	2	3	4	5	6

* Denotes negatively keyed items

† Items dropped during items selection analyses